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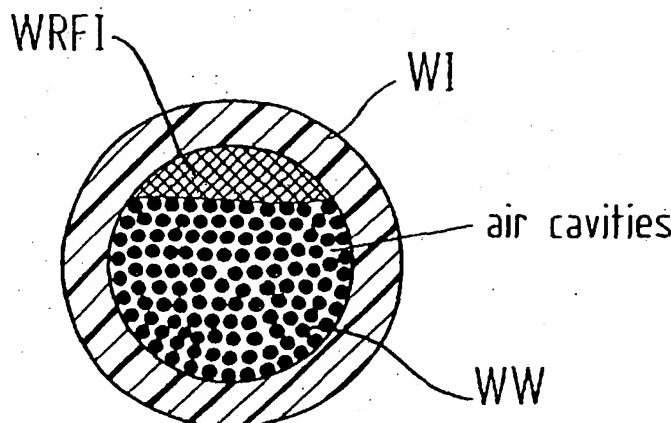
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(54) Title: **WATER SENSING WIRE AND POWER CABLE USING A WATER SENSING WIRE**



(57) Abstract: The invention relates to a water sensing wire (WSW) for a cable (PCA) wherein the water sensing wire (WSW) comprises a conductor (WC), a water permeable insulation (WI) surrounding said conductor (WC) and wherein said conductor (WC) is formed by a plurality of metal wires (WW). The water sensing wire (WSW) may also comprise a plurality of filaments (WRFI) contained inside the water permeable insulation (WI). Therefore, longitudinal and/or radial application of stresses cannot cause a damage of the water sensing wire (WSW) because damages can be avoided by the deformable cross section of the sensor conductor and by the reinforcement provided through the filaments (WRFI). The water sensing wire (WSW) in accordance with the invention is particularly useful in power cables but may also be used in telecommunication cables or optical fibres.



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